



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,393	06/30/2006	Masanori Omote	450100-05036	3343
7590 William S Frommer Frommer Lawrence & Haug 745 Fifth Avenue New York, NY 10151				
EXAMINER				
MARC, MC'DEUNEL				
ART UNIT		PAPER NUMBER		
3664				
MAIL DATE		DELIVERY MODE		
11/03/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,393

Applicant(s)

OMOTE, MASANORI

Examiner

MCDIEUNEL MARC

Art Unit

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2009.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-17 are pending.
2. The rejection to claims 1-13 under U.S.C. 112, second paragraph had been withdrawn.
3. The rejection to claims 1-13 under 35 U.S.C. 103(a) as being unpatentable over **Glenn et al.** (U.S. Pat. No. **6,763,282**) in view of **GASIL** (General Aviation Safety Information Leaflet 2002) is maintained.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Glenn et al.** (U.S. Pat. No. **6,763,282**) in view of **GASIL** (General Aviation Safety Information Leaflet 2002).

As per claim 1, 4 and 5, **Glenn et al.** teaches a system and an associated robot that uses impulse radio technology having an autonomous robot apparatus which communicates with a communication apparatus by radio and independently determines an action in accordance with an instruction from a user or a surrounding environment (see figs. 11 and 13, wherein receiving instruction from a user is inherent), the robot apparatus comprising: measuring means for measuring the quality of communication of radio signals received from the communication apparatus (see Figs. 9, 10, 14 and 19, col. 3, lines 49-57); determining means for determining the action on the basis of the communication quality measured by the measuring means (see col. 1, lines 52-63, wherein radar capabilities, monitoring and control being interpreted as measuring the quality of the communication); and processing means for performing a process of allowing the robot apparatus to (see fig. 13, element 1306); and with respect to claim 5, the program is embedded in a computer readable medium for executing all the above mentioned limitations. Glenn et al. does not specifically teach physically communicate loss of radio communication with the communication apparatus to the user.

GASIL teaches physically communicate loss of radio communication with the communication apparatus to the user (see page 16, first to third paragraph).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the robot type of Glenn et al., with the radio communication type of GASIL, because this modification would have provided the well known radio communication features Glenn's et al. for example, thereby improving the efficiency and the reliability of the system and method of information processing of a robot.

As per claim 2, Glenn et al. teaches a robot that uses impulse radio technology wherein the determining means determines the action on the basis of the details of the current action of the robot apparatus and the communication quality measured by the measuring means (see col. 1, lines 52-63 as noted above).

As per claims 3, 7, 10 and 11, Glenn et al. teaches a robot that uses impulse radio technology wherein the determining means determines the generation of predetermined speech, and the processing means outputs the speech through a speaker (see col. 15, lines 66 -- to -- col. 16, line -3, wherein using speaker for outputting sound in robotics being considered as known in the art. See flakey for instance).

As per claim 6, Glenn et al. teaches a robot wherein the radio signals measured for a predetermined time and for a predetermined threshold (see col. 1, lines 12-49).

As per claim 8, Glenn et al. teaches a robot wherein measuring is supplied from sensors (see Fig. 10, element 1006a).

As per claim 9, Glenn et al. teaches a robot wherein measuring means outputs state recognition information for the sensors (see Fig. 10).

As per claim 12, Glenn et al. teaches a robot wherein a next action based on the state recognition information from a storage means and elapse time (see Fig. 10, element 1006a, wherein by design choice a video camera contain all the above features).

As per claim 13, Glenn et al. teaches a robot wherein the communication quality includes signal strength corresponding to resistance to noise or error rate in a communication packet due to burst interference (see col. 14, lines 37-58).

As per claim 14, **Gasil** teaches in combination Glenn et al. a system wherein the robot apparatus notifies the user of the loss of radio communication using functions peculiar to the robot apparatus (see page 16, "Loss of radio communication" section).

As per claim 15, **Gasil** teaches in combination Glenn et al. a system wherein the robot apparatus notifies the user of the loss of radio communication using speech (see page 18, "Radio chat" section).

As per claim 16, **Gasil** teaches in combination Glenn et al. a system wherein the robot apparatus notifies the user of the loss of radio communication via a gesture (see page 16, "Loss of radio communication" section).

As per claim 17, **Gasil** teaches in combination Glenn et al. a system wherein the robot apparatus is in standby state after notifying the user of the loss of radio communication until

receiving an instruction from the user (see page 16, "Loss of radio communication" and page 18 "Radio chat" sections).

Response to Arguments

7. As to the reference not teaching a robot physically communicating (see Glenn's et al. Figs. 9, 10, 11, 13, 14 and 19, col. 3, lines 49-57) loss of radio communication to a use (see page 16 of GASIL, particularly "loss of communication between Air Traffic Control (ATC) and aircraft" covers the communication to a user part, since the ATC usually operates by an operator);

As to the reference not teaching a robot apparatus communication (see Glenn's et al. Figs. 9, 10, 14 and 19, col. 3, lines 49-57 as noted above) loss of radio communication with a communication apparatus (see page 16 of GASIL, particularly "loss of communication between Air Traffic Control (ATC), wherein the ACT being taken as communication apparatus that communicates with the onboard apparatus of the aircraft);

As to the reference not teaching "measuring the quality of the communication of radio signals" (see Glenn's et al. Figs. 9, 10, 14 and 19, col. 3, lines 49-57).

As to the reference not teaching "determining an action based on the communication quality and allowing the robot apparatus to communicate the action" (see Glenn's et al. Figs. 9 and 10, wherein the action of the robot communicate its action to the control station, and communication quality as been considered as compatible signals).

As to the reference not teaching "communicate the action determined to a user" (see

Glenn's et al. Figs. 9 and 10, wherein action has been communicate to the control station which being control by a user).

8. Applicant's arguments filed 06/23/2009 have been fully considered but they are not persuasive.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571)272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/McDieunel Marc/
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664